

What is claimed is:

1. A stereo camera comprising:

a pair of photographing optical systems arranged in a common plane so that a common photographing coverage occurs
5 between a pair of photographing areas taken by said pair of photographing optical systems;

an object distance measuring device;

Sub A1
a convergence angle adjustment mechanism adapted to vary an angle of convergence defined by, and between, the
10 optical axes of said pair of photographing optical systems, so as to adjust an amount of said common photographic coverage of said pair of photographing optical systems; and

a controller adapted to control said convergence angle adjustment mechanism in accordance with object distance data
15 obtained by said object distance measuring device.

2. The stereo camera according to claim 1, wherein

said pair of photographing optical systems are each comprised of a photographing lens and an image pickup device;

20 said convergence angle adjustment mechanism comprises a drive mechanism which rotates each photographing optical system to vary the angle of convergence in a direction to make median lines of field angles of said pair of photographing optical systems intersect each other.

25 ~~3. The stereo camera according to claim 2, wherein~~

said drive mechanism comprises:

a pair of rotary plates whose center axes of rotation are parallel with each other, each of said rotary plates supporting each respective said pair of photographing
5 optical systems;

sector gears provided on each of said pair of rotary plates, the sector gears of one of said pair of rotary plates being in mesh with the sector gear of the other of said pair of rotary plates;

10 a sector worm wheel provided on one of said rotary plates; and

a worm which is in mesh with said sector worm, said worm being secured to a drive shaft of a motor.

4. The stereo camera according to claim 1, wherein
15 said convergence angle adjustment mechanism comprises a variable angle prism provided in a light path of each said pair of photographing optical systems.

5. The stereo camera according to claim 1, wherein said convergence angle adjustment mechanism comprises a
20 drive mechanism which moves at least a part of each said pair of photographing optical system in a direction of the base length of said pair of photographing optical systems.

6. The stereo camera according to claim 1, wherein each of said pair of photographing optical systems is

provided with a respective first and second image pickup device, wherein when passive measurements of the object distance are carried out by said first and second image pickup devices, measurement points for each of said first and second image pickup devices are located on a side of the field angle thereof, with respect to the median line thereof, closest to a corresponding respective one of said second and first image pickup devices.

7. The stereo camera according to claim 1, wherein said stereo camera is applied to an electronic still camera.

8. A stereo camera comprising;
at least a pair of photographing optical systems arranged in a common plane; and
a convergence angle control device which varies an angle of convergence defined by and between the optical axes of said pair of photographing optical systems in accordance with object distance data.

9. A stereo camera comprising;
a pair of photographing optical systems arranged in a common plane so that a common photographing coverage occurs between a pair of photographing areas taken by said pair of photographing optical systems;
an object distance measuring device;
a photographic coverage adjustment device adapted to adjust an amount of said photographic coverage of said pair

a controller adapted to control said photographic coverage adjustment device in accordance with object distance data obtained by said object distance measuring device.

5 device

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